Amendment to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

1-14. (Canceled)

15. (Currently Amended) Use of a neural implant that enhances proliferation of neural tissue and minimizes scar formation comprising:

(a) obtaining a neural implantable device comprising a composite nanomaterial, said nanomaterial comprising carbon nanofiber material with nanofibers about 2 to 200 nm in width and a polymer matrix, wherein said nanomaterial is a polyurethane-carbon nanofiber composite, said carbon nanofibers comprise carbon nanotubes, and said carbon nanotubes are functionalized with 4-hydroxynonenal; and

(b) securing the implantable device in the neural tissue where proliferation of neuronal tissue is desired.

Claims 16-26 (Canceled).

27. (Currently Amended) Use of a neural implant that minimizes scar formation comprising:

(a) obtaining a neural implantable device, wherein said neural implantable device comprises a nanocomposite component, said nanocomposite comprising a polymer material and a nanomaterial wherein said nanomaterial has a dimension ranging from 5 nm to less than 500 nm, wherein the nanomaterial component is comprised of a polyurethane (PU)-carbon nanofiber (CN) composite and the carbon nanofibers have a size in the range of about 10 to about 100 nm in width and length;

(b) implanting said neural implantable device in the neural tissue of a patient where proliferation of neuronal tissue is desired.

Claims 28-32 (Canceled)

33. (Currently Amended) The use in accordance with claim [[32]] 27 wherein the nanofibers are multi-walled nanotubes.

34. (Currently Amended) ~~The use in accordance with claim 30~~Use of a neural implant that minimizes scar formation comprising:

(a) obtaining a neural implantable device, wherein said neural implantable device comprises a nanocomposite component, said nanocomposite comprising a polymer material and a nanomaterial wherein said nanomaterial has a dimension ranging from 5 nm to less than 500 nm, the nanomaterial component is comprised of a polyurethane (PU)-carbon nanofiber (CN) composite, and~~wherein~~ the polyurethane (PU)-carbon nanofiber (CN) composites have a size in the range of about 50 to 100 nm and the composite comprises about 80:20 by weight percent carbon nanofiber to polyurethane;

(b) implanting said neural implantable device in the neural tissue of a patient where proliferation of neuronal tissue is desired .

35. (Currently Amended) ~~The use in accordance with claim 30~~Use of a neural implant that minimizes scar formation comprising:

(a) obtaining a neural implantable device, wherein said neural implantable device comprises a nanocomposite component, said nanocomposite comprising a polymer material and a nanomaterial wherein said nanomaterial has a dimension ranging from 5 nm to less than 500 nm, the nanomaterial component is comprised of a polyurethane (PU)-carbon nanofiber (CN) composite, and~~wherein~~ the polyurethane (PU)-carbon nanofiber (CN) composites have a size in the range of about 60 to 100 nm and the composite comprises about 90:10 by weight percent carbon nanofiber to polyurethane;

(b) implanting said neural implantable device in the neural tissue of a patient where proliferation of neuronal tissue is desired.